

Abstract of the Disclosure

A semiconductor wafer cleaning apparatus and method uses only one inner bath for chemical solution and de-ionized water cleaning, and includes a marangoni dryer for cleaning and drying semiconductor wafers. The apparatus includes a loading unit loaded with a cassette holding wafers; a moving mechanism for extracting the wafers from the cassette and moving the wafers into a loader; an inner bath for cleaning the wafers with a chemical solution or de-ionized water; a marangoni dryer including a hood, for moving the wafers from the loader into the bath, to be sealed to the bath; and a knife for supporting the wafers loaded into the bath at a lower portion thereof and moving the wafers up and down. Since the marangoni dryer is adhered to the bath during drying, the wafers are not affected by laminar flow or exhaustion and water marks do not occur thereon.